Safety Data Sheets

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name
SS22 ink White
Product Description
SS22-W-50
Product Use
INK JET ink
Restrictions on Use
None known
Manufacturer Information
Mimaki Engineering Co., Ltd
2182-3 Shigeno-otsu, Tomi-shi, Nagano 389-0512 Japan
Phone: +81-268-64-2413
Importer / Distributor Information
MIMAKI AUSTRALIA PTY LTD.
Unit 14, 38-46 South Street, Rydalmere, NSW 2116, Australia
Phone: + 61-2-8036-4500
Emergency telephone number
+61 2 8014 4558 (within Australia only)
18000 74234 (within Australia only)
+65 3158 1074

Section 2 - HAZARDS IDENTIFICATION

Classification of the substance or mixture
COMBUSTIBLE LIQUID, regulated for storage purposes only.
Poisons Schedule: Not Applicable.
Classification

Flammable Liquid	: Category 4
Serious Eye Damage	: Category 2
Reproductive Toxicity	: Category 2

GHS Label Elements
Symbol(s)

Signal Word
Danger
Hazard Statement(s)
H227 Combustible liquid.
H319 Causes serious eye irritation.
H361 Suspected of damaging fertility or the unborn child.
Precautionary Statement(s)
Prevention

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P201 Obtain special instructions before use.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P264 Wash all exposed external body areas thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P370+P378 In case of fire: Use water spray/fog for extinction.
Storage
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
Disposal
P501 Dispose of contents/container in accordance with local regulations.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS No	Name	%[weight]
Trade secret	Glycol ether solvents	70-80
13463-67-7	Titanium dioxide	10-20
Trade secret	Heterocyclic compound	1-10
Trade secret	Vinyl resin	1-10

Section 4 - FIRST AID MEASURES

Description of first aid measures

Eye Contact : If this product comes in contact with the eyes:
Wash out immediately with fresh running water.
Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
Seek medical attention without delay; if pain persists or recurs seek medical attention.
Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Skin Contact : If skin or hair contact occurs:
Flush skin and hair with running water (and soap if available).
Seek medical attention in event of irritation.

Inhalation : If fumes, aerosols or combustion products are inhaled remove from contaminated area.
Other measures are usually unnecessary.

Ingestion : Immediately give a glass of water.
First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Indication of any immediate medical attention and special treatment needed : Treat symptomatically.

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Section 5 - FIRE FIGHTING MEASURES

Extinguishing media	: Foam. Dry chemical powder. BCF (where regulations permit). Carbon dioxide. Water spray or fog - Large fires only.
Fire Incompatibility	: None known.
Fire Fighting	: Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Use water delivered as a fine spray to control fire and cool adjacent area. Avoid spraying water onto liquid pools. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire.
Fire/Explosion Hazard	: Combustible. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit irritating/ toxic fumes. May emit acrid smoke. Mists containing combustible materials may be explosive. May emit poisonous fumes. May emit corrosive fumes.
HAZCHEM	: Not Applicable.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

See section 8.

Environmental precautions

See section 12.

Methods and material for containment and cleaning up

Minor Spills	: Remove all ignition sources. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite. Wipe up. Place in a suitable, labelled container for waste disposal.
Major Spills	: Moderate hazard. Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. No smoking, naked lights or ignition sources. Increase ventilation. Stop leak if safe to do so. Contain spill with sand, earth or vermiculite. Collect recoverable product into labelled containers for recycling. Absorb remaining product with sand, earth or vermiculite.

Collect solid residues and seal in labelled drums for disposal.
Wash area and prevent runoff into drains.
If contamination of drains or waterways occurs, advise emergency services.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

Section 7 - HANDLING AND STORAGE

Precautions for safe handling	: Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Avoid smoking, naked lights or ignition sources. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers securely sealed when not in use. Avoid physical damage to containers. Always wash hands with soap and water after handling. Work clothes should be laundered separately.
Conditions for safe storage	: Store in original containers. Keep containers securely sealed. No smoking, naked lights or ignition sources. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storage and handling recommendations contained within this SDS.
Storage incompatibility	: None known

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters
OCCUPATIONAL EXPOSURE LIMITS (OEL)
INGREDIENT DATA
Not Available

EMERGENCY LIMITS

Source	Ingredient	TWA	STEL	Notes
Australia Exposure Standards	Titanium dioxide	10 mg/m3	Not Available	(a) This value is for inhalable dust containing no asbestos and < 1% crystalline silica.

Ingredient	Original IDLH	Revised IDLH
Titanium dioxide	5,000 mg/m3	Not Available

Exposure controls

Appropriate Engineering Controls	: General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas.

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Personal protection

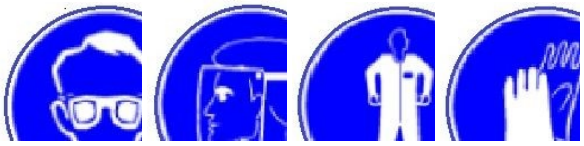
Respiratory Protection	: Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent) Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content. The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate. Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used
Hand Protection	: Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended. Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: · frequency and duration of contact, · chemical resistance of glove material, · glove thickness and · dexterity Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent). · When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. · When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. · Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use. · Contaminated gloves should be replaced. As defined in ASTM F-739-96 in any application, gloves are rated as: · Excellent when breakthrough time > 480 min · Good when breakthrough time > 20 min · Fair when breakthrough time < 20 min · Poor when glove material degrades For general applications, gloves with a thickness typically greater than 0.35

mm, are recommended. It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times. Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers technical data should always be taken into account to ensure selection of the most appropriate glove for the task. Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:

- Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.
- Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.

Eye and Face Protection : Safety glasses with side shields. Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent]
Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

Skin Protection : Wear safety footwear or safety gumboots, e.g. Rubber. Overalls. P.V.C. apron.



Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance: Black liquid

Physical state	Liquid	Relative density (Water = 1)	1.074
Odour	Slight	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available

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Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	64.5	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Combustible	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water (g/L)	Not Available	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

Section 10 - STABILITY AND REACTIVITY

Reactivity : Stable under normal conditions of use.
Chemical Stability : Unstable in the presence of incompatible materials.
Product is considered stable.
Possibility of Hazardous Reactions : Hazardous polymerisation will not occur.
Conditions to Avoid : See section 7.
Incompatible Materials : See section 7.
Hazardous decomposition products : See section 5.

Section 11 - TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled : The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.
Ingestion : The material has NOT been classified by EC Directives or other classification systems as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence.
Skin Contact : Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.
There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons.
Open cuts, abraded or irritated skin should not be exposed to this material
Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye : This material can cause eye irritation and damage in some persons.
Chronic : Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility.

	TOXICITY	IRRITATION
As a Product	Not Available	Not Available

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Acute Toxicity	: Data Not Available to make classification.
Skin Irritation/Corrosion	: Data Not Available to make classification.
Serious Eye Damage/Irritation	: Data available to make classification.
Respiratory or Skin sensitisation	: Data Not Available to make classification.
Mutagenicity	: Data Not Available to make classification.
Carcinogenicity	: Vinyl resin: Tumours at site of applications. IARC Cancer Review: Animal Limited Evidence. Equivocal tumourigen by RTECS criteria.
Reproductivity	: Data available to make classification.
STOT – Single Exposure	: Data Not Available to make classification.
STOT – Repeated Exposure	: Data Not Available to make classification.
Aspiration Hazard	: Data Not Available to make classification.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
As a Product	Not Available	Not Available	Not Available	Not Available	Not Available

Legend: Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances – Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated)

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
	No Data available for all ingredients	No Data available for all ingredients

Bioaccumulative potential

Ingredient	Bioaccumulation
	No Data available for all ingredients

Mobility in soil

Ingredient	Mobility
	No Data available for all ingredients

Section 13 - DISPOSAL CONSIDERATIONS

Product / Packaging disposal : Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked. A Hierarchy of Controls seems to be common - the user should investigate:

Reduction
Reuse
Recycling
Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.

DO NOT allow wash water from cleaning or process equipment to enter drains.
It may be necessary to collect all wash water for treatment before disposal.
In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
Where in doubt contact the responsible authority.
Recycle wherever possible or consult manufacturer for recycling options.
Consult State Land Waste Authority for disposal.
Bury or incinerate residue at an approved site.
Recycle containers if possible, or dispose of in an authorised landfill.

Section 14 - TRANSPORT INFORMATION

Marine Pollutant	: NO.
HAZCHEM	: Not Applicable.
Land transport (ADG)	: NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS.
Air transport (ICAO-IATA / DGR)	: NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS.
Sea transport (IMDG-Code / GGVSee)	: NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS.
Transport in bulk according to Annex II of MARPOL and the IBC code	: Not Applicable.

Section 15 - REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture
Glycol ether solvent is found on the following regulatory lists
Australian Inventory of Industrial Chemicals (AIIC)
Heterocyclic compoundis found on the following regulatory lists
Australian Inventory of Industrial Chemicals (AIIC)
Vinyl resin is found on the following regulatory lists
Australian Inventory of Industrial Chemicals (AIIC)
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
Titanium dioxideis found on the following regulatory lists
Australian Inventory of Industrial Chemicals (AIIC)
Chemical Footprint Project - Chemicals of High Concern List
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

Additional Regulatory Information
Not Applicable.

Inventory

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Section 16 - OTHER INFORMATION

Revision Date
Initial Date **2025/04/25**

Other Information
Disclaimer:
The information set forth in this Safety Data Sheet does not purport to be all-inclusive and should be used only as a guide. While the information and recommendations set forth herein are believed to be accurate, the company makes no warranty regarding such information and recommendations and disclaims all liability from reliance thereon.